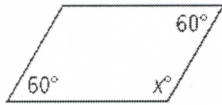


Geometry Unit 8 Worksheet #3

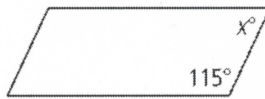
For #1-3, find the value of  $x$  in each parallelogram.

1.



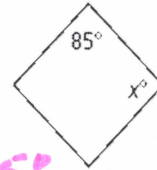
$$x = 120^\circ$$

2.



$$x = 65^\circ$$

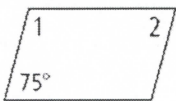
3.



$$x = 95^\circ$$

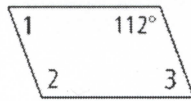
For #4 - 9, find the measure of each numbered angle.

4.



$$\angle 1 = 105^\circ \quad \angle 2 = 75^\circ$$

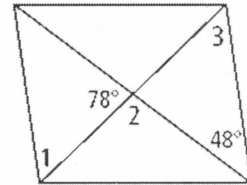
5.



$$\angle 1 = 68^\circ \quad \angle 2 = 112^\circ$$

$$\angle 3 = 68^\circ$$

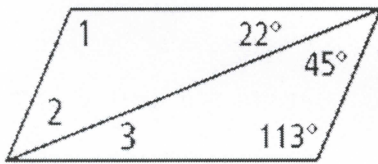
6.



$$\angle 1 = 54^\circ \quad \angle 2 = 102^\circ$$

$$\angle 3 = 54^\circ$$

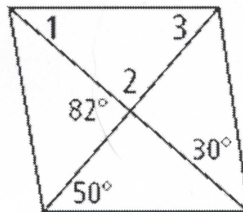
7.



$$\angle 1 = 113^\circ \quad \angle 2 = 45^\circ$$

$$\angle 3 = 22^\circ$$

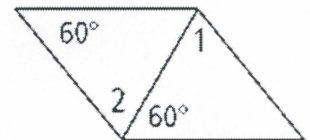
8.



$$\angle 1 = 32^\circ \quad \angle 2 = 98^\circ$$

$$\angle 3 = 50^\circ$$

9.



$$\angle 1 = 60^\circ \quad \angle 2 = 60^\circ$$

For #10-11, Find the value of the variable in  $\square DEFG$ .

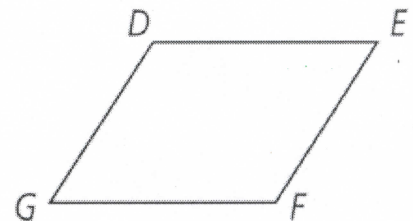
10.  $DG = 2x + 2$ ,  $EF = 3x - 3$

$$x = 5$$

$$\begin{array}{r} 2x + 2 = 3x - 3 \\ -2x \quad -2x \\ \hline 2 = x - 3 \\ 5 = x \end{array}$$

11.  $DE = 3a + 2$ ,  $GF = 2a + 8$

$$\begin{array}{r} 3a + 2 = 2a + 8 \\ -2a \quad -2a \\ \hline a + 2 = 8 \\ a = 6 \end{array}$$



# If all the cars in the U.S.A. were pink, what would we have?

Find the missing angle measures or lengths. To figure out the joke, place the letter of each problem above the answer on the line(s) below. Some blanks will go unfilled.

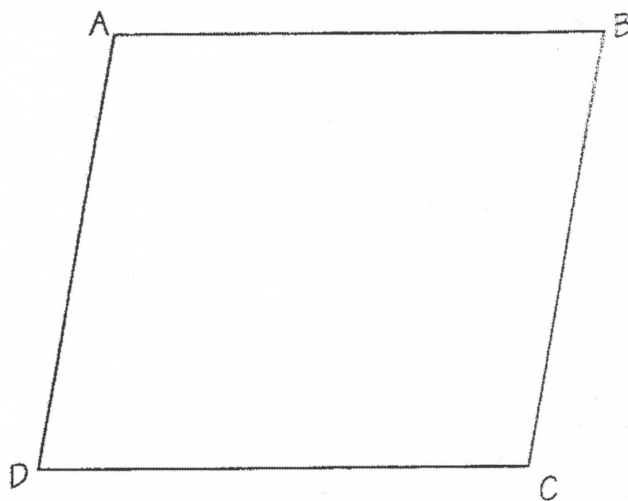
A:  $m\angle C = 110^\circ$ ,  $m\angle B = \underline{70^\circ}$

N:  $AB = 12$ ,  $CD = \underline{12}$

O:  $m\angle D = 60^\circ$ ,  $m\angle B = \underline{60^\circ}$

R:  $AD = 8$ ,  $BC = \underline{8}$

A:  $m\angle A + m\angle B + m\angle C + m\angle D = \underline{360^\circ}$



ABCD is a parallelogram

T:  $EH = 10$ ,  $FG = \underline{10}$

I:  $EJ = 6$ ,  $JG = \underline{6}$

I:  $HJ = 7$ ,  $HF = \underline{14}$

A:  $m\angle HEG = \underline{21^\circ}$

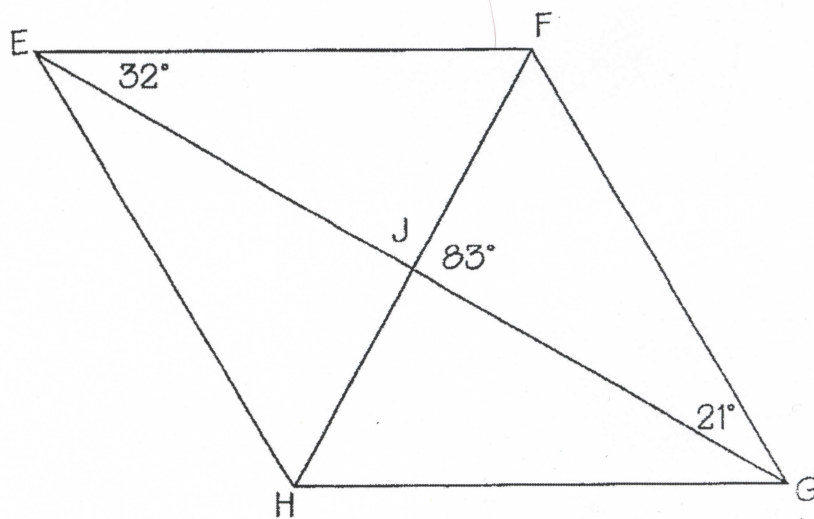
N:  $m\angle HEF = \underline{53^\circ}$

N:  $m\angle EFG = \underline{127^\circ}$

K:  $m\angle EHF = \underline{97^\circ}$

C:  $m\angle EFH = \underline{51^\circ}$

P:  $m\angle HFG = \underline{76^\circ}$



EFGH is a parallelogram

  A     P     I     N     K     C     A     R     N     A     T     I     O     N    
 16 360 5 76 14 12 97 25 51 21 8 127 70 10 6 60 53 92